

IN THE CLAIMS:

Please amend the claims as follows. This listing of claims will replace all prior versions, and listings, of claims in the application:

Claims 1-15 (Canceled)

Claim 16 (Currently Amended): The information recording system according to claim ~~15~~ 28, wherein said writing component forms said visible image pattern by generation of a difference in reflectance as said change in optical characteristic between the portion where pits are formed and the pit-less portion through irradiation of the light on the recording layer formed in the optical recording medium.

Claims 17-18 (Canceled).

Claim 19 (Previously Presented): An information recording system for recording information on an optical recording medium, comprising:

a driving component for driving the optical recording medium;

a writing component for forming a visible image pattern by irradiation of light on a recording layer formed in the optical recording medium to generate a change in optical characteristic of the recording layer where pits are formed with the light as compared to a pit-less portion where pits are not formed; and

a data generating component for generating data of the visible image pattern to be formed in the recording layer of the optical recording medium, wherein said writing component modulates the light based on image pattern data generated by said data generating component and irradiates the modulated light on the recording layer, said system further comprising an editing component for editing the image pattern data generated by said data generating component, and a reading component for optically reading information already recorded in the recording layer of the optical recording medium, wherein said editing component detects an unrecorded area in the recording layer based on information read by said reading component or reflected light quantity from said optical recording medium and automatically edits the image pattern data generated by said data generating component so that the image pattern matches with said detected unrecorded area.

Claim 20 (Currently Amended): An information recording system for recording information in an optical recording medium comprising:

a driving component for driving the optical recording medium;

a writing component for forming a visible image pattern by irradiation of light on a recording layer formed in the optical recording medium to generate a change in optical characteristic of the recording layer where pits are formed with the light as compared to a pit-less portion where pits are not formed, wherein said optical recording medium is a recordable optical disc which is readable by a disc player;

a data generating component for generating data of the visible image pattern to be formed in the recording layer of the optical recording medium, wherein said writing component

modulates the light based on image pattern data generated by said data generating component
and irradiates the modulated light on said recording layer;

an editing component for editing the image pattern data generated by said data
generating component; and

~~The information recording system according to claim 18, further comprising~~

a reading component for optically reading information already recorded in the recording layer of the optical recording medium, wherein said editing component automatically edits the image pattern data generated by said data generating component based on a table of contents (TOC) information or Absolute Time in Pre-groove (ATIP) information read by said reading component.

Claim 21 (Canceled).

Claim 22 (Previously Presented): The information recording system according to claim 19, wherein said editing component changes a resolution or size of the image pattern data when editing the image pattern data.

Claim 23 (Previously Presented): The information recording system according to claim 20, wherein said editing component changes a resolution or size of the image pattern data when editing the image pattern data.

Claim 24 (Previously Presented): The information recording system according to claim 19, adapted to compare the size of the image pattern to be generated with the unrecorded area for forming said image pattern and to prohibit formation of the visible image pattern when the unrecorded area is smaller than the size of the image pattern.

Claim 25 (Previously Presented): The information recording system according to claim 19, adapted to compare a width of the visible image pattern to be generated with a width of the unrecorded area for forming the image pattern and to prohibit formation of the visible image pattern when the width of the unrecorded area is smaller than the width of the visible image pattern.

Claim 26 (Currently Amended): The information recording system according to claim ~~15~~ 28, wherein said writing component is commonly used for recording of data of the visible image pattern and for recording of recordable data other than the data of the visible image pattern into the recording area of the optical recording medium.

Claim 27 (Previously Presented): An information recording system for recording information on an optical recording medium, comprising:

a driving component for driving the optical recording medium; and

a writing component for forming a visible image pattern by irradiation of light on a recording layer formed in the optical recording medium to generate a change in optical characteristic of the recording layer where pits are formed with the light as compared to a pit-

less portion where pits are not formed, wherein said writing component is commonly used for recording of data of the visible image pattern and for recording of recordable data other than the data of the visible image pattern into the recording area of the optical recording medium and, wherein said writing component is adapted to enlarge a spot size of the light when recording said visible image pattern from the spot size used when recording recordable data other than the data of the visible image pattern.

Claim 28 (Currently Amended): An information recording system for recording information in an optical recording medium comprising:

a driving component for driving the optical recording medium; and

a writing component for forming a visible image pattern by irradiation of light on a recording layer formed in the optical recording medium to generate a change in optical characteristic of the recording layer where pits are formed with the light as compared to a pit-less portion where pits are not formed, wherein said optical recording medium is a recordable optical disc which is readable by a disc player ~~The information recording system according to claim 15,~~ wherein said writing component comprises a first writing component for recording of the data of the visible image pattern onto an unrecorded area of the optical recording medium and a second writing component for recording of recordable data other than the data of the visible image pattern onto said recording layer, and wherein said first and second writing components are adapted to operate independently.

Claim 29 (Previously Presented): An information recording system for recording information on an optical recording medium, comprising:

a driving component for driving the optical recording medium; and

a writing component for forming a visible image pattern by irradiation of light on a recording layer formed in the optical recording medium to generate a change in optical characteristic of the recording layer where pits are formed with the light as compared to a pit-less portion where pits are not formed, wherein said writing component comprises a first writing component for recording of the data of the visible image pattern onto an unrecorded area of the optical recording medium and a second writing component for recording of recordable data other than the data of the visible image pattern onto the recording layer, and wherein said first and second writing components are adapted to operate independently and a spot size of the light irradiated on the unrecorded area by said first writing component is made larger than the spot size of the light irradiated on the recording layer by said second writing component.

Claim 30 (Previously Presented): An information recording system for recording information on an optical recording medium, comprising:

a driving component for driving the optical recording medium; and

a writing component for forming a visible image pattern by irradiation of light on a recording layer formed in the optical recording medium to generate a change in optical characteristic of the recording layer where pits are formed with the light as compared to a pit-less portion where pits are not formed, wherein said writing component forms said visible

image pattern by generation of a difference in reflectance as said change in optical characteristic of the recording layer where pits are formed as compared to the pit-less portion through irradiation of the light on the recording layer formed in the optical recording medium and wherein said writing component is adapted to form an image pattern having a plurality of gray scale levels through provision of different sizes of the pits or different distances between adjacent ones of the pits.

Claim 31 (Currently Amended): The information recording system according to claim ~~15~~ 28, comprising a display component for displaying a simulation of the visible image pattern based on data of an image pattern edited by said editing component.

Claims 32-35 (Canceled).

Claim 36 (Currently Amended): The information recording apparatus according to claim ~~32~~ 38, wherein the optical recording medium carries information having been recorded therein, and the visible image pattern is recorded in an unrecorded area of the optical recording medium.

Claim 37 (Currently Amended): The information recording apparatus according to claim ~~33~~ 39, wherein the optical recording medium carries information having been recorded therein, and the visible image pattern is recorded in an unrecorded area of the optical recording medium.

Claim 38 (Currently Amended): An information recording apparatus for recording information on an optical recording medium, comprising:

driving means for driving the optical recording medium;

writing means for forming a visible image pattern by irradiation of light on a recording layer formed in the optical recording medium to generate a change in optical characteristic of the recording layer where pits are formed with the light as compared to a pit-less portion where pits are not formed, wherein said optical recording medium is a recordable optical disc which is readable by a disc player; and

~~The information recording apparatus according to claim 32, further comprising~~
a detection component for detecting an unrecorded area of the optical recording medium, wherein the visible image pattern is recorded on the unrecorded area of the optical recording medium based on a result of detection by said detecting component.

Claim 39 (Currently Amended): An information recording apparatus for recording information on an optical recording medium, comprising:

driving means for driving the optical recording medium;

writing means for forming a visible image pattern by irradiation of light on a recording layer formed in the optical recording medium to generate a change in optical characteristic of the recording layer where pits are formed with the light as compared to a pit-less portion where pits are not formed, wherein said optical recording medium is a recordable optical disc which is readable by a disc player,

wherein the visible image pattern is constituted by any of characters, signs, pictorial patterns and a combination of at least two of characters, signs, and pictorial patterns; and

~~The information recording apparatus according to claim 33, further comprising~~

a detection component for detecting an unrecorded area of the optical recording medium, wherein the visible image pattern is recorded on the unrecorded area of the optical recording medium based on a result of detection by said detecting component.

Claim 40 (Currently Amended): An information recording apparatus for recording information on an optical recording medium, comprising:

driving means for driving the optical recording medium;

writing means for forming a visible image pattern by irradiation of light on a recording layer formed in the optical recording medium to generate a change in optical characteristic of the recording layer where pits are formed with the light as compared to a pit-less portion where pits are not formed, wherein said optical recording medium is a recordable optical disc which is readable by a disc player,

wherein the visible image pattern is recorded in an unrecorded area of the optical recording medium; and

~~The information recording apparatus according to claim 34, further comprising~~

a detection component for detecting an unrecorded area of the optical recording medium, wherein the visible image pattern is recorded on the unrecorded area of the optical recording medium based on a result of detection by said detecting component.

Claim 41 (Currently Amended): An information recording apparatus for recording information on an optical recording medium, comprising:

driving means for driving the optical recording medium;

writing means for forming a visible image pattern by irradiation of light on a recording layer formed in the optical recording medium to generate a change in optical characteristic of the recording layer where pits are formed with the light as compared to a pit-less portion where pits are not formed, wherein said optical recording medium is a recordable optical disc which is readable by a disc player,

wherein the visible image pattern is constituted by any of characters, signs, pictorial patterns and a combination of at least two of characters, signs, and pictorial patterns, and

wherein the visible image pattern is recorded in an unrecorded area of the optical recording medium; and

~~The information recording apparatus according to claim 35, further comprising~~
a detection component for detecting an unrecorded area of the optical recording medium, wherein the visible image pattern is recorded on the unrecorded area of the optical recording medium based on a result of detection by said detecting component.

Claim 42 (Currently Amended): The information recording apparatus according to claim ~~32~~ 38, further comprising a display component for displaying a simulation of the visible image pattern based on data of the visible image pattern.

Claim 43 (Currently Amended): The information recording apparatus according to claim 33 39, further comprising a display component for displaying a simulation of the visible image pattern based on data of the visible image pattern.

Claim 44 (Currently Amended): The information recording apparatus according to claim 34 40, further comprising a display component for displaying a simulation of the visible image pattern based on data of the visible image pattern.

Claim 45 (Currently Amended): The information recording apparatus according to claim 35 41, further comprising a display component for displaying a simulation of the visible image pattern based on data of the visible image pattern.

Claim 46 (Currently Amended): An information recording system for recording information in an optical recording medium comprising:
a driving component for driving the optical recording medium; and
a writing component for forming a visible image pattern by irradiation of light on a recording layer formed in the optical recording medium to generate a change in optical characteristic of the recording layer where pits are formed with the light as compared to a pit-less portion where pits are not formed, wherein said optical recording medium is a recordable optical disc which is readable by a disc player ~~The information recording system according to claim 15,~~ wherein said writing component performs recording with the light on an optical recording medium having a recording layer of a cyanine dye or azo dye.

Claims 47-55 (Canceled).

Claim 56 (Currently Amended): An optical recording medium having a data recording layer and an image recording layer for forming a visible image pattern by generating a change in optical characteristic between a light-irradiated portion and a non-light-irradiated portion of said image recording layer, wherein said optical recording medium is further provided with address information data that is embedded in the optical recording medium for recording an image pattern in said image recording layer.

Claim 57 (Currently Amended): A recording system for use with an optical recording medium having a data recording layer and an image recording layer for forming a visible image pattern by generating a change in optical characteristic between a light-irradiated portion and a non-light-irradiated portion of said image recording layer, and provided with address information data that is embedded in the optical recording medium for recording an image pattern in said image recording layer, said recording system comprising:

a driving component for driving said optical recording medium, and

a writing component for forming the visible image pattern at a location specified by the address information data by irradiation of light on said image recording layer of said optical recording medium to generate a change in optical characteristic of the image recording layer between the light-irradiated portion and the non-light-irradiated portion.